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**UNITES STATES DISTRICT COURT
DISTRICT OF WYOMING**

STATE OF WYOMING, et al.,

Petitioners,

v.

UNITED STATES DEPARTMENT OF THE
INTERIOR, et al.,

Respondents

Case No. 16-cv-00285-SWS [Lead]

[Consolidated With 2:16-cv-00280-SWS]

Assigned: Hon. Scott W. Skavdahl

**DECLARATION OF ELIZABETH
SCHEEHLE IN SUPPORT OF
INTERVENOR-APPLICANTS
CALIFORNIA AND NEW MEXICO'S
MOTION TO INTERVENE**

I, Elizabeth Scheehle, state and declare as follows:

1. I am over 21 years of age and am fully competent and duly authorized to make this Declaration. The Facts contained in this Declaration are based on my personal knowledge and are true and correct.

2. I am employed as the Branch Chief of the Oil and Gas and Greenhouse Gas Mitigation Branch by the California Air Resources Board ("ARB"), a position I have held since 2014. The ARB is a part of the California Environmental Protection Agency, an organization which reports directly to the Governor's Office in the Executive Branch of California State Government.

3. The mission of ARB is to promote and protect public health, welfare and ecological resources of California's citizens through the monitoring and protection of air quality. The ARB's major goals include providing safe, clean air to all Californians, reducing California's emission of greenhouse gasses, and providing leadership and innovative approaches for implementing air pollution controls. In addition to developing statewide rules, ARB works with local California air districts, many of which regulate oil and gas pollution at the regional or county level.

4. I am informed and believe that the oil and gas program in California is one of the more active in all of the western states, with 2013 onshore oil production figures ranking the state as the 3rd most productive state in the nation. California's federal leases produce about 15 million barrels of oil and approximately 7 billion cubic feet of natural gas annually. California's federal production totals generally average approximately 8%-10% of California's total oil and natural gas production. California has collected royalty revenues from this production ranging from approximately \$50 to over \$100 million over the past decade. Over the entire US, estimated royalties of as much as \$23 million annually are lost when natural gas is wasted.

5. I am informed and believe that the majority of California's oil and gas activities occurring on public lands are located in the San Joaquin Valley. More than 95% of federal drilling occurs in Kern County, which houses four of the nation's top seven producing oil fields.

The portion of Kern County in the San Joaquin Valley is in extreme nonattainment with the federal eight-hour ozone standard and is also in nonattainment for federal fine particulate matter standards, as well as numerous state ambient air quality standards. Excess pollution in this part of California significantly increases rates of asthma, heart disease, and lung disease, and raises cancer risk. All of these costs burden Californians.

6. ARB and local air district rules can and do apply to oil and gas operations on federal lands, including BLM lands. Federal regulatory decisions can strengthen the implementation and enforcement of air pollution controls, and support state and local efforts. ARB will explore a Memorandum of Understanding or similar document with BLM to support the federal program.

7. Emissions from oil and gas operations that are emitted along with wasted and leaked methane include criteria pollutants that contribute to smog formation, as well as toxic pollutants that contribute to cancer risks and other health problems. Leaked and wasted methane itself is a very potent greenhouse gas. Short lived climate pollutants such as methane remain in the atmosphere for a shorter period of time than carbon dioxide. Given the relatively short lifetime, reducing methane can effectively slow the rate of climate change in the near term and can have an immediate beneficial impact. Methane's relative climate forcing (or impact) when measured in terms of how effectively it heats the atmosphere is 86 times carbon dioxide, when considered on a twenty year time frame and using the Fifth Assessment Report from the Intergovernmental Panel on Climate Change, which is the most recent and comprehensive scientific assessment. Global methane emissions accounted for 14 percent of global greenhouse gas emissions in 2005 and methane emissions from the United States are estimated at approximately 10 percent of those global emissions. Methane emissions controls represent one of the most important ways of slowing the pace of global climate change because they can be readily and cost-effectively reduced. In 2014, methane emissions from oil and gas operations were the top methane emissions source in the U.S., representing a third of all U.S. methane emissions. In the U.S., a study by the ICF consulting group and commissioned by the Environmental Defense Fund, *Economic Analysis of Methane Emission Reduction Opportunities in the U.S. Onshore and*

Natural Gas Industries, estimated a 40% reduction in methane to cost around a penny or less per thousand cubic feet of natural gas produced, even without considering the full economic value of the saved gas.

8. Although all states face serious risks from climate change, and so will benefit from reductions in methane emissions, California faces particularly sharp climate vulnerabilities. For example: Much of the state's population and infrastructure lies along the coastline and is vulnerable to sea level rise. The state's vibrant agricultural economy is sensitive to rising temperatures and increased risk of drought and heavy rainfall events. And much of the state's water supply comes from seasonal snowpack on the Sierra Nevada. Accordingly, California actively seeks ways to reduce the risks of climate change, and to reduce greenhouse gas pollution.

9. In an effort to promote its goals, ARB has introduced draft proposed rules on greenhouse gas emissions from oil and natural gas facilities designed to reduce methane emissions by 40%-45% in 2025. These draft rules complement BLM's Waste Prevention Rule. ARB has similar, and sometimes more stringent, requirements for leak detection, pneumatic devices and storage tank venting, and local air districts' rules for volatile organic compounds have additional complementary requirements that limit venting, fugitives, and flaring. Additionally, the BLM rule includes requirements on liquids unloading, and requires planning for gas capture as well as providing important economic incentives by clarifying the inclusion of flared gas in royalty rates. Because ARB's proposed regulations would apply to BLM lands, if ARB finalizes and adopts its own rules, ARB would likely seek to enter into an MOU with BLM to coordinate enforcement.

10. California also consumes a significant amount of imported natural gas and oil with approximately ninety percent of the natural gas consumed in California coming from out of state. I am informed and believe that a portion of these imports comes from production on federal lands outside of the state of California. With approximately 11 percent of the U.S. natural gas production coming from onshore federal lands and about 375 billion cubic feet

related to that production flared or emitted, an estimated 40 percent of which could be economically recovered, BLM's rule would likely reduce emissions from natural gas used within the state. Methane wasted from federal leases out of state contributes to climate change that significantly affects Californians. Without comprehensive, national, controls, including controls on waste from federal leases, California sustains continuing risks to its people, and these risks increase if federally-related emissions increase.

I declare under penalty of perjury that the foregoing is true and correct and that this Declaration was executed in Sacramento, California on December 15, 2016



Elizabeth Scheehle
Chief, Oil and Gas and Greenhouse Gas Mitigation Branch